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bushes on the marsh at Ocosta, April 30. *Helminthopila c. lutescens* seemed to be the most common Warbler during my stay. Then came *Dendroica auduboni*, and after May 2, I often saw or heard *Sylvania p. pileolata*. At Hoquiam, May 6, I saw two *Dendroica nigrescens*, and shot one.

Thryothorus bewickii spilurus. VIGORS'S WREN.—Resident. Not common. One seen at Ocosta May 2; a few others heard. At South Bend I saw one, Feb. 18. Besides its harsh, grating call this Wren has a song represented somewhat by the following: *tr-twe, tr-twe, che-we!, che-we!, che-we!*. It is generally sung from the top of a tall bush or other high perch.

Cistothorus palustris paludicola. LONG-BILLED MARSH WREN.—Shot one of a pair seen Feb. 14 on the salt marsh below South Bend. At Ilwaco, March 9, I saw one, and listened to its song while it clung to a reed. Its song was a queer medley of grating, Wren-like notes, followed by clear little peeps,—animated, unique.

In regard to *Salpinctes obsoletus*, given in my 'Preliminary List' (Auk, IX, 47), Mr. Palmer suggests (Auk, IX, 310) that Gray's Harbor is much out of its usual range. It is; but the species was present in 1890. I have but once since met this bird: at Seattle, Nov. 15, 1891, when a single individual allowed for some minutes a close inspection. It moved about on a gravelly bank on Renton Hill.

BIRDS OF SOUTHWESTERN NEW MEXICO.

BY A. W. ANTHONY.

As faunal lists of the birds of our southwestern border are by no means as numerous as is desirable, those treating of the desert regions being especially rare, I have considered the following notes as perhaps worthy of publication. The region embraced in the present paper lies to the southward of the Southern Pacific Railroad, in the extreme southwestern part of Grant County, New Mexico, where that Territory extends its lines to the south into Mexico, making a 'pan handle' of forty miles north and south, by the same distance east and west.

This region is an extensive plain, having a mean elevation of about 5500 feet, and is broken by numerous short ranges of mountains usually not extending more than a few miles before

breaking away into the plain again; few of them have elevations of over 1500 feet above the surrounding country, the Animas and Sierra Hachita or Big Hachita ranges being notable exceptions to this rule. The former is the longest and most extensive range in this part of the country, being about forty miles in length and having peaks of perhaps 8000' feet elevation, while the Sierra Hachita extends its peaks to about 7000 feet.

Most of my observations were made in a small range of low mountains, known as the Apache Hills, lying five miles north of the national boundary. A description of these hills would answer for any of the ranges within a radius of forty miles. Lying with their greatest extent north and south, like nearly all of the ranges in this region, the Apache Hills cover an area of about thirty square miles, their highest elevation being about 1500 feet above the surrounding plain. The lower slopes are covered with a scattered growth of yucca, agave, and ocotillo,—a species of *Euphorbia*,—the dry blossom stalks of the two first-mentioned furnishing the only nesting sites for *Dryobates scalaris bairdi* and *Myiarchus cinerascens*.

Along the dry arroyos a few dwarfed mesquite bushes were found, with an occasional thorny shrub, none reaching a height of over six or seven feet. A few solitary dwarf junipers struggled for life on some of the highest slopes, and in one valley on the northern side of the range a dozen or more stunted evergreen oaks drew a miserable existence from the scanty soil. Even the various species of cactus usually so abundant in arid regions seemed to be less abundant and hardy than usual; a few chollas were found in nearly all of the arroyos, and small patches of *Opuntia* grew in several places on the lower slopes.

Water was not to be found in the entire range, our supply for camp use being drawn in wagons from a small spring in the Little Hachita mountains, ten miles west of Apache. During the winter season water was sometimes caught in small basins in the limestone, forming tanks which held more or less water for perhaps three months after a very wet winter, but during the remainder of the year no water was obtainable nearer than the above-mentioned spring.

The list is therefore, aside from the migrants, largely of species that live for the greater part of the year entirely without

water, raising broods of young that reach maturity, perhaps, before the rains of September introduce water as an article of every day use.

My observations extend from the last week in February to the last of October in 1886 and from the last of September to December 16 in 1889. During the months of June and July, and until August 15, the temperature during the day ranged from 110° Fahr. to 118° with frequent records of 125°. No rains fell until the latter part of August, when heavy storms of short duration formed several small ponds in the valleys, the lower part of the Playa Valley, sixteen miles west of Apache, being a sheet of water twenty miles in length by three miles wide, having a depth of not over ten inches, and lasting until late September. Here were found several species of Ducks and Geese, birds not properly belonging to the region, as it is only in unusually wet seasons that there is sufficient water to induce them to stop.

With the August rains came the first green grass; the landscape which since February had presented a burned, dead appearance, soon began to show signs of a coming springtime. The agaves sent up their blossom stalks, which in many cases reached a height of twenty-five feet; the ocotillos ventured to put out a fringe of small oval leaves, the first they had worn for eight months; and in an incredibly short time the agaves were crowned with a pyramid of waxy yellow flowers, furnishing an unfailing repast for thousands of Hummingbirds that had suddenly appeared on their southward journey. Cassin's Sparrows became common about the mouths of the arroyos where the grass was the greenest, and many species not noticed during the spring migration became more or less abundant.

Owing to hostile Apaches it was necessary to avoid the higher mountain ranges—the Hachita and Animas, as well as favorable points in the Sierra Nevada just south of the boundary. Many interesting records were thus lost, and the list becomes one of species inhabiting the barren hills and desert plains of southwestern New Mexico.

1. *Anas carolinensis*. GREEN-WINGED TEAL.—One was shot from a flock of *A. discors*, September 13, on a small pond seven miles east of Apache; two were taken at Hachita ten miles west of that point in October, 1889.

2. *Anas discors*. BLUE-WINGED TEAL.—A flock of about twenty was found, September 7 and 15, seven miles east of camp. Many species of Ducks and Geese were reported from the Playa Valley in September, but as I did not visit that locality until after they were gone I cannot be sure as to the species.

3. *Plegadis guarauna*. WHITE-FACED GLOSSY IBIS.—A company of three was found September 7 on the pond seven miles east of Apache, and an adult and young secured.

4. *Ardea candidissima*. SNOWY HERON.—A specimen was brought to me from the Playa Valley, September 24.

5. *Fulica americana*. AMERICAN COOT.—On September 13 a flock of ten was found at the pond east of camp.

6. *Recurvirostra americana*. AMERICAN AVOCET.—A flock of a dozen was started from a mud hole near camp, September 7.

7. *Gallinago delicata*. WILSON'S SNIPE.—One was seen for several days in October, 1889, about a mud hole near Hachita.

8. *Tringa maculata*. PECTORAL SANDPIPER.—A large flock was found near Apache, September 13.

9. *Tringa minutilla*. LEAST SANDPIPER.—A large flock in company with the preceding species.

10. *Numenius longirostris*. LONG-BILLED CURLEW.—On March 25 a pair was seen on an immense prairie dog town in the valley west of Apache.

11. *Charadrius squatarola*. BLACK-BELLIED PLOVER.—A pair was seen in the above-mentioned dog town late in March.

12. *Aegialitis vocifera*. KILLDEER.—One alighted near my cabin at Apache, September 4, in an almost exhausted condition, evidently a stray migrant. Three days later a large flock was found on the plain east of the Apache range.

13. *Callipepla squamata*. SCALED PARTRIDGE.—Rather abundant through most of the region explored, but more common in and near the mountains. Once or twice I found a flock several miles out on the plains, but I think they seldom wander far from the hills. A set of eight fresh eggs was taken on July 13 from a nest under a dead mescale (agave) on a high ridge. The nest was a mere hollow with a little dry grass to keep the eggs from contact with the hot rocks. I think that, late as it was, this must have been the first set, as no young were seen until the last of July, while birds but a few days old were taken as late as September 28.

C. gambeli and *Cyrtonyx montezumae* were described to me from the Sierra Hachita, but none were met with. The Mexican Turkey is also said to be abundant in all of the ranges west and south of the region explored, and to have wandered on several occasions into the Sierra Hachita.

14. *Zenaidura macroura*. MOURNING DOVE.—Very abundant until May 5, after which date none were seen until August 20 when they arrived in large numbers on their way south. Eighty per cent of the females

taken at this time contained eggs that would have been deposited within a day or two. One bird was found incubating two eggs on September 6. Unfortunately, however, these eggs were destroyed by some animal, and I am unable to say whether they would have hatched. As no young were seen, I am inclined to think that most if not all of the eggs deposited at this late date were infertile. (See Zoe, Vol. I, p. 380.)

15. *Cathartes aura*. TURKEY VULTURE.—After its appearance in April it was common, and it probably nested in the region, as young were taken in August.

16. *Circus hudsonius*. MARSH HAWK.—Very abundant in September and October, but very rare or not noticed during the spring migration.

17. *Accipiter velox*. SHARP-SHINNED HAWK.—One seen on September 23 at Apache.

18. *Buteo borealis calurus*. WESTERN REDTAIL.—Probably most of the Redtails seen were winter residents. Rather common after late September and until April.

19. *Buteo abbreviatus*. ZONE-TAILED HAWK.—A few were seen all summer, but they were rather more plentiful in April, and seemed to be moving north. A favorite resort was about a large prairie dog town in the valley west of Apache.

20. *Buteo swainsoni*. SWAINSON'S HAWK.—But few were seen during the spring and summer, but when the fall migration began they were very abundant. On September 19, during a ride of forty miles across the plains, several hundred large Hawks were seen, all moving southward in companies of from two or three to fifteen. The percentage of species was about: *B. swainsoni* .75, *B. borealis calurus* .15, *Circus hudsonius* .10.

22. *Falco mexicanus*. PRAIRIE FALCON.—A single bird seen at Apache.

23. *Falco fusco-cœrulescens*. APLOMADO FALCON.—A pair was seen in the valley between Apache and Hachita, June 2.

24. *Falco sparverius*. AMERICAN SPARROW HAWK.—Abundant as a migrant.

25. *Pandion haliaetus carolinensis*. AMERICAN OSPREY.—Frequently seen in spring and early summer; one shot April 14. The presence of this species in the midst of this arid plain, seventy-five miles from the nearest stream of water, was something of a surprise to me, and I am still at a loss to account for their presence. It is quite possible that they may have been passing from the Rio Grande to the Gila River.

26. *Asio wilsonianus*. AMERICAN LONG-EARED OWL.—One shot in the Little Hachita range, April 30.

27. *Bubo virginianus subarcticus*. WESTERN HORNED OWL.—Rather common in all of the ranges, seeking shelter in the scrubby junipers during the day.

A *Megascops* was several times seen at Apache, but I am in doubt as to the species.

28. *Speotyto cunicularia hypogæa*. BURROWING OWL.—More or less common in all of the dog towns.

29. *Micropallas whitneyi*. ELF OWL.—One shot near Apache on September 6 is the only record.

30. *Geococcyx californianus*. ROADRUNNER.—No roadrunners were seen in the Apache Hills, although their tracks were seen on one or two occasions. At Hachita and in the little Hachita Mountains, however, they were not uncommon. At Hachita a pair came regularly to one of the mines for water, a small pool having been formed near the shaft, from the pumps. The visit was made at nearly the same hour each forenoon, and was eagerly looked forward to by a fox hound owned by one of the workmen. The dog never failed to give chase as soon as the birds were sighted, and the race was as much enjoyed by the birds as by the dog; they seemed to have no difficulty whatever in keeping well out of danger without taking wing, and usually found time during the chase to stop at the water hole and get their daily drink, after which they quickly disappeared.

31. *Ceryle alcyon*. BELTED KINGFISHER.—One seen near the railroad, September 23.

32. *Dryobates scalaris bairdi*. BAIRD'S WOODPECKER.—Rather common wherever yuccas or agaves afforded nesting sites. A nest was found, May 19, in the dry blossom stalk of an agave, containing four or five young not over two days old.

33. *Sphyrapicus thyroideus*. WILLIAMSON'S SAPSUCKER.—One seen near Hachita, September 30, 1889.

34. *Colaptes cafer*. RED-SHAFTED FLICKER.—Not seen after April 1. Common during winter and spring.

35. *Phalaenoptilus nuttalli nitidus*. FROSTED POORWILL.—Poorwills were not uncommon about Apache after April 6, and one was seen in the Sierra Hachita or Big Hachita range as late as November 24.

36. *Chordeiles virginianus henryi*. WESTERN NIGHTHAWK.—Two were seen flying south, July 26, which with one shot August 18 completes the record.

37. *Chordeiles texensis*. TEXAS NIGHTHAWK.—At Deming this species fairly swarmed in June and July, and was doubtless nesting. They were rather rare at Apache, however, being seen there on May 17 and on only one or two subsequent occasions. There seem to be but few of the habits of the Eastern Nighthawk that are shared by this species. *C. texensis* flies low and does much of his hunting within two feet of the ground, while a large part of his bill of fare is obtained by jumping up from the ground and catching passing insects, without taking wing—a habit also noticed in *Phalaenoptilus*. The flight of *texensis* also is unaccompanied by the many aerial evolutions and booming notes so common in *virginianus*. The only note I have ever heard from *texensis* was a low chipping, uttered when a pair were chasing each other.

38. *Micropus melanoleucus*. WHITE-THROATED SWIFT.—A few were seen during the spring at Apache and again in October (1-15) about Hachita, ten miles west of the former camp.

39. *Trochilus alexandri*. BLACK-CHINNED HUMMINGBIRD.—Not uncommon about the blossoms of the mescales in August. It is quite probable that a few may have nested in the Apache Hills, as a female was taken July 9 that showed signs of having incubated quite recently.

40. *Trochilus platycercus*. BROAD-TAILED HUMMINGBIRD.—The only Hummingbird noticed during the spring migration. A few were seen hovering about the flaming red blossoms of the ocotillo, but it was more often heard screeching by overhead. It was abundant in August, feeding in company with all other Hummers upon the insects attracted by the mescale blossoms.

41. *Trochilus rufus*. RUFOUS HUMMINGBIRD.—None noticed until the last of July, when the first mescale blossoms appeared. Arriving by hundreds in early August, it fairly took possession of every blossom to the exclusion of all other species. The blossoms of the agave were considered the especial property of *rufus*, nor were his rights often contested. If an unfortunate Broadtail or Calliope happened to be feasting upon a choice bunch of flowers when a Rufous appeared upon the stage, his angry demand to vacate was seldom ignored. Occasionally a Hummer more hardy than the rest ventured to give battle, but the fight was always short and the victory to the Rufous. On November 4 a Hummer flew by me, over the top of the Little Hatchita, that was either this species or the following.

42. *Trochilus calliope*. CALLIOPE HUMMINGBIRD.—First seen on July 15, and abundant after that date. Unlike the preceding, the present species was very shy and silent.

43. *Tyrannus verticalis*. ARKANSAS KINGBIRD.—More or less common during both migrations in all of the low ranges.

44. *Tyrannus vociferus*. CASSIN'S KINGBIRD.—In company with the preceding, and in and about the same numbers.

45. *Myiarchus cinerascens*. ASH-THROATED FLYCATCHER.—Abundant after April 14.

46. *Sayornis saya*. SAY'S PHŒBE.—After March 12 and during the spring migration Say's Phœbe was fairly common in nearly all of the cañons and along the rocky hillsides. A nest was taken on May 26, and young were seen later. No *Sayornis* were seen, however, after June 15 until the first fall migrant appeared August 30, they all having made a second migration in early June (see Zoe, Vol. I, p. 380).

47. *Contopus borealis*. OLIVE-SIDED FLYCATCHER.—Several were seen in a cañon east of Apache on September 6.

48. *Contopus richardsonii*. WESTERN WOOD PEWEE.—Seen only in fall; rather common from August 14 until the last of September.

49. *Empidonax difficilis*. WESTERN FLYCATCHER.—I have but one spring record, May 21. A few were seen and taken at Apache in August and September.

50. *Empidonax pusillus*. LITTLE FLYCATCHER.—A few were taken from July 30 to September 6. No spring records.

51. *Empidonax hammondi*. HAMMOND'S FLYCATCHER.—A few were taken from August 31 to September 15.

52. *Empidonax wrightii*. WRIGHT'S FLYCATCHER.—The most abundant of the genus from April 6 until the 30th, and from August 18 to September 16.

53. *Empidonax fulvifrons pygmæus*. BUFF-BREASTED FLYCATCHER.—Several were seen in August, and one taken on the 16th.

54. *Otocoris alpestris adusta*. Common on the plains and valleys throughout the region.

55. *Aphelocoma woodhousei*. WOODHOUSE'S JAY.—Common in the piñon growth in the Sierra Hachita and Animas range.

56. *Corvus corax sinuatus*. AMERICAN RAVEN.—Common throughout the region visited.

57. *Corvus cryptoleucus*. WHITE-NECKED RAVEN.—More common than the preceding. Old nests were frequently seen in the tall yuccas between Apache and the railroad. A nest was found on June 2 with one egg. On July 3 this same nest contained two young not over two or three days old. I am satisfied that this was the first brood, though what could have caused such late nesting I am unable to say. Nor was the tardiness confined to this single pair. During July nests were frequently seen with young still unable to fly, and it was not until August that young were seen on the wing.

58. *Molothrus ater*. COWBIRD.—Rare about camp in spring, but more common in late summer. No specimens were taken, and I am not sure whether *M. a. obscurus* occurred.

59. *Xanthocephalus xanthocephalus*. YELLOW-HEADED BLACKBIRD.—Rather common during most of the summer, usually in company with Brewer's Blackbird about the corrals.

60. *Agelaius phœniceus*. RED-WINGED BLACKBIRD.—A single bird on April 27 and one on October 19 complete the record; both were with Brewer's Blackbirds.

61. *Sturnella neglecta*. WESTERN MEADOWLARK.—A few Meadowlarks were seen in March and April, and but one or two in October.

62. *Icterus parisorum*. SCOTT'S ORIOLE.—First seen on April 26, and very common after the first of May. They were found chiefly in the ocotillos along the lower hills, after the migration had subsided, and were remarkable for their extreme shyness. Specimens taken the last of August were moulting and scarcely able to fly.

63. *Icterus bullocki*. BULLOCK'S ORIOLE.—A single male shot in a growth of ocotillos at Apache, May 15.

64. *Scolecophagus cyanocephalus*. BREWER'S BLACKBIRD.—Abundant at Apache and in all of the ranges of hills after April 20, and even throughout the summer with the exception of a short time the last of June and first of July.

65. *Carpodacus mexicanus frontalis*. HOUSE FINCH.—Common in the hills everywhere until about April 15.

66. *Spinus psaltria*. ARKANSAS GOLDFINCH.—A few were seen about Thompson's Spring, a water hole in the Little Hachita, April 26-30.

67. *Calcarius ornatus*. CHESTNUT-COLLARED LONGSPUR.—In 1886 large flocks were seen along the railroad and on the plain between Apache and Hachita, remaining until April 10. They were very abundant in the same localities as early as October 1, 1889.

68. *Rhynchophanes macconnii*. McCOWN'S LONGSPUR.—Only observed along the line of the Southern Pacific from October until February.

69. *Pooecetes gramineus confinis*. WESTERN VESPER SPARROW.—A very abundant species in all of the region visited during the spring migration, confined largely to the lower ranges. They were still rather rare at the time of my leaving Apache, October 19.

70. *Ammodramus sandwichensis alaudinus*. WESTERN SAVANNA SPARROW.—A Savanna Sparrow was seen at Apache on two occasions in May, but as it was not taken its identity is, perhaps, somewhat doubtful.

On several occasions a small Sparrow was seen on the plain below Apache which I was strongly inclined to think was *A. bairdii*. No specimens were taken however.

71. *Chondestes grammacus strigatus*. WESTERN LARK SPARROW.—Very abundant at Apache during both migrations, more so in spring than in fall, flocking with Vesper Sparrows along the cañons and hillsides.

72. *Zonotrichia leucophrys*. WHITE-CROWNED SPARROW.—White-crowns were very abundant about Apache from late February until the last of April, and I think *Z. l. intermedia* and *Z. l. leucophrys* were equally common. As few specimens were taken the status is somewhat doubtful.

73. *Spizella socialis arizonæ*. WESTERN CHIPPING SPARROW.—Very abundant as a migrant.

74. *Spizella pallida*. CLAY-COLORED SPARROW.—Rather common as a migrant, staying more along the plain and edges of the higher land than the preceding species, which confined itself largely to the slopes of the lower mountains.

75. *Spizella breweri*. BREWER'S SPARROW.—More common than *pallida*, with which it was found.

76. *Spizella atrigularis*. BLACK-CHINNED SPARROW.—A single specimen secured October 9, 1889, from the top of the Little Hachita, and one seen November 24 in the Sierra Hachita or Big Hachita twenty-five miles south of the first-named locality, are my only records.

77. *Junco hyemalis shufeldti*. SHUFELDT'S JUNCO.—Rather common as a winter resident about Apache and in the ranges to the west.

78. *Junco annectens*. PINK-SIDED JUNCO.—Common as a winter resident, and found in all of the ranges of low hills and mountains visited.

79. *Junco caniceps*. GRAY-HEADED JUNCO.—Common with the preceding as winter resident.

80. *Junco ridgwayi*. RIDGWAY'S JUNCO.—On March 16 a Junco was taken near Apache that in the absence of further material I was obliged to

regard as a hybrid between *caniceps* and *annectens*, although I was reasonably sure that a second was seen on May 21. Upon my return to the region in 1889 the first Junco taken was a fine *ridgwayi*, from a mixed flock of Juncos at Granite Gap, in the Little Hatchita, ten miles west of Apache. The species is probably more or less common in all of the mountain ranges in this region, wintering with *caniceps*, *annectens*, and *shufeldti*.

81. *Peucæa cassini*. CASSIN'S SPARROW.—Cassin's Sparrows were first seen at Apache on July 19, and were common in favorable localities after that date until late fall, being in full song until the last. One or two were seen on the plain below Apache, but their favorite resort was a flat at the mouth of a large arroyo south of camp, where the late summer rains had produced a fairly respectable growth of grass and a few vines. Here a few were always to be seen and heard.

82. *Peucæa ruficeps boucardi*. BOUCARD'S SPARROW.—Common at Apache during all of my residence in 1886, but not noticed either at that point or in the Hatchita ranges in October or November, 1889. At Apache they seemed to prefer the rocky hillsides, seldom or never venturing below camp. Young in first plumage were taken August 30.

83. *Pipilo maculatus megalonyx*. SPURRED TOWHEE.—A few seen along the arroyos during migrations.

84. *Pipilo chlorurus*. GREEN-TAILED TOWHEE.—During both migrations, more common in fall.

85. *Pipilo fuscus mesoleucus*. CAÑON TOWHEE.—Abundant in all of the mountainous regions visited. Nests found on June 8 and July 31 with nearly fresh eggs. Favorite nesting sites were thick bunches of cholla cactus and between the leaves of yuccas.

86. *Habia melanocephala*. BLACK-HEADED GROSBEAK.—A few during both migrations.

87. *Passerina amoena*. LAZULI BUNTING.—A few were seen in female or immature plumage during the migrations.

88. *Calamospiza melanocorys*. LARK BUNTING.—During the spring migrations but few were seen, but after August 1, and until late in October flocks of thousands were seen on the plains south of the railroad.

89. *Piranga ludoviciana*. LOUISIANA TANAGER.—Met with occasionally in the arroyos about Apache from July 26 until Sept. 26. Most of them were young birds or females.

90. *Piranga hepatica*. HEPATIC TANAGER.—A single adult male was seen near Apache, September 14, and was the only full-plumaged male met with. Young birds and females were not uncommon during the fall migration, but were very shy.

91. *Petrochelidon lunifrons*. CLIFF SWALLOW.—A few were seen September 30.

92. *Chelidon erythrogaster*. BARN SWALLOW.—Seen on one or two occasions at Apache and Deming. A few were seen nesting at the latter place, where large numbers were seen flying south as late as October 1.

93. *Tachycineta thalassina*. VIOLET-GREEN SWALLOW.—Rare during migrations.
94. *Clivicola riparia*. BANK SWALLOW.—A single bird at Apache, July 26.
95. *Lanius ludovicianus excubitorides*. WHITE-RUMPED SHRIKE.—Seen only as a migrant.
96. *Vireo solitarius cassini*. CASSIN'S VIREO.—During fall migrations, rather common.
97. *Vireo solitarius plumbeus*. PLUMBEOUS VIREO.—Fall migrant, seen as late as September 25.
98. *Vireo vicinior*. GRAY VIREO.—Rare. A few were taken during spring and summer.
99. *Helminthophila virginiae*. VIRGINIA'S WARBLER.—A male shot near Apache, August 23, is the only record.
100. *Helminthophila celata* (?). ORANGE-CROWNED WARBLER.—Occurred only as a rare migrant, one taken during each migration.
101. *Dendroica aestiva*. YELLOW WARBLER.—Seen only in the fall, when females were not uncommon. No males observed.
102. *Dendroica auduboni*. AUDUBON'S WARBLER.—A common migrant throughout the region, frequently seen far out on the plain foraging in the greasewood.
103. *Dendroica nigrescens*. BLACK-THROATED GRAY WARBLER.—Seen but once during spring, but not uncommon in the juniper growth during the fall migration.
104. *Dendroica townsendi*. TOWNSEND'S WARBLER.—Specimens were taken at Apache April 23 and August 2, and at Hachita September 28. It is, perhaps, not rare as a migrant.
105. *Geothlypis macgillivrayi*. MACGILLIVRAY'S WARBLER.—With the possible exception of *Sylvania pusilla*, the most abundant of the Warblers, being flushed by dozens from every bunch of mesquite and greasewood along the arroyos and well into the higher hills. Most abundant from August 3 to October 12.
106. *Geothlypis trichas occidentalis*. WESTERN YELLOWTHROAT.—Two specimens were taken at a water hole in the Little Hachita, April 30 and May 31.
107. *Icteria virens longicauda*. LONG-TAILED CHAT.—Seen but once, September 15, near Apache.
108. *Sylvania pusilla* (?). WILSON'S WARBLER.—Very abundant as a migrant. Usually seen with Macgillivray's Warbler along the arroyos.
109. *Setophaga picta*. PAINTED REDSTART.—A fine male was taken August 31. Probably more common in the Sierra Hachita.
110. *Anthus pensylvanicus*. AMERICAN PIPIT.—A few were seen in October on the plains and along the line of the railroad.
111. *Oroscoptes montanus*. SAGE THRASHER.—At Apache I found Sage Thrashers abundant from the time of my arrival, February 28, until the last of March, and after September 1. They showed a marked prefer-

ence for the arroyos and rocky hillsides, but were frequently seen on the plain several miles from the mountains.

112. *Harporhynchus curvirostris palmeri*. PALMER'S THRASHER.—Several pairs of Palmer's Thrashers were found at Apache during the spring migration. At Hachita I found them on several occasions in October and November, but owing to their extreme shyness very few were secured.

113. *Harporhynchus crissalis*. CRISSAL THRASHER.—Found in about the same numbers and at the same time as the preceding species. Neither of them bred in the vicinity of Apache. At Deming, however, the present species was found in comparative abundance throughout the season.

114. *Campylorhynchus brunneicapillus*. CACTUS WREN.—Common throughout the region, showing a marked preference, however, for the lower ranges of the mountains. Nests were found in mesquite or other thorny bushes as well as cactus. Usually from four to ten nests were seen in the same bush or in the immediate vicinity, a circumstance I was at a loss to account for until I discovered that the birds were in the habit of patching up nests of the preceding seasons and rebuilding them for use as shelters during winter. (See Zoe, Vol. II, p. 133.)

115. *Salpinctes obsoletus*. ROCK WREN.—Very abundant in all of the mountain ranges, and to a large extent resident; more common, however, in winter. A nest was found, July 11, several feet below the surface of the ground in a mine that was being worked day and night. How the nest and eggs escaped being destroyed by the blasts, which were fired within a few yards of them several times each day, is a puzzle to me.

116. *Catherpes mexicanus punctulatus* (?). DOTTED CANON WREN.—A few were seen on the Hachita ranges in October and November, 1889.

117. *Thryothorus bewickii bairdi*. BAIRD'S WREN.—Rather common at both Apache and Hachita during the migrations, frequently seen far out on the open plain.

118. *Troglodytes aëdon aztecus*. WESTERN HOUSE WREN.—Rather rare, but seen during both migrations.

119. *Auriparus flaviceps*. VERDIN.—Well distributed throughout the region, but by no means common at any point visited. Evidently resident, but no nests were discovered.

120. *Regulus calendula*. RUBY-CROWNED KINGLET.—Rather abundant in the mountains during the migrations. All of those taken show a marked grayness on the upper parts; not noticed in specimens from other regions.

121. *Polioptila cærulea* (?). BLUE-GRAY GNATCATCHER.—First seen April 1. Although not so abundant, during summer as in spring, many were seen throughout the season, and several broods of young were noted.

122. *Polioptila plumbea*. PLUMBEOUS GNATCATCHER.—A pair seen, and the male secured, April 4. I do not think it was again met with.

123. *Polioptila californica*. BLACK-TAILED GNATCATCHER.—In my notebook, under the date of April 4, I find the record of the capture of a bird

of this species. The specimen has been mislaid, however, and I am unable to verify the identification at the present time, which leaves the record somewhat doubtful.

124. *Myiadestes townsendii*. TOWNSEND'S SOLITAIRE.—Seen at Hachita on one or two occasions in October and November, and on the plain east of Apache, April 30.

125. *Turdus aonalaschkæ*. DWARF HERMIT THRUSH.—A few were met with in the hills until late in May.

126. *Turdus aonalaschkæ auduboni*. AUDUBON'S HERMIT THRUSH.—Rather less common than the preceding.

127. *Merula migratoria propinquæ*. WESTERN ROBIN.—A few were seen at Apache the first week in April. Not again met with until August 7. Rare at Hachita in October.

128. *Sialia mexicana*. WESTERN BLUEBIRD.—Abundant everywhere during both migrations.

129. *Sialia arctica*. ARCTIC BLUEBIRD.—Abundant with the preceding species. A few probably winter in the mountain ranges.



OBSERVATIONS ON THE BIRDS OF JAMAICA, WEST INDIES.

BY W. E. D. SCOTT.

I. A LIST OF THE BIRDS RECORDED FROM THE ISLAND, WITH ANNOTATIONS.

(Continued from p. 277.)

In the July number of 'The Auk' it was stated that Mr. Taylor's notes on some of the birds there treated had not come to hand, and would be given later. They have since been received and are as follows.

124. *Crotophaga ani* (*Linn.*).—The Ani appears to be abundant in all parts of the island. It is one of the commonest birds near Kingston; and in most open or sparsely wooded lands, or in the vicinity of cultivated clearings, little groups or companies may nearly always be seen. Blackbirds are invariably present wherever cattle are pastured. I cannot recollect an instance in which I have noted a herd of cows at pasture without a flock of these birds appearing in company with them or in their immedi-